

1. A method of detecting improper installation of an auxiliary child seat in a motor vehicle and alerting a vehicle operator in the case of improper installation, the auxiliary child seat having a properly installed condition wherein the auxiliary child seat is resting on top of a vehicle seat, a seatbelt anchored to the vehicle is fastened around the auxiliary child seat by means of a seatbelt buckle, and the seatbelt is tightened to a tautness within an acceptable range, the method comprising:

- monitoring a seat occupancy sensor to determine whether the auxiliary child seat is present on the vehicle seat;

- monitoring a buckle condition sensor to determine whether the seatbelt buckle is fastened or unfastened;

- activating an alerting device if the auxiliary child seat is present on the vehicle seat and the seatbelt buckle is unfastened;

- monitoring a seatbelt tension sensor to determine a tautness of the seatbelt; and

- activating the alerting device if the auxiliary child seat is present, the seatbelt buckle is fastened, and the seatbelt tautness is not within the acceptable range.

2. The method of claim 1, wherein the step of monitoring the seat occupancy sensor comprises monitoring a weight sensor to determine if an object having a weight similar to the auxiliary child seat is resting on the seat.

3. The method of claim 1, wherein the step of monitoring the occupant classification sensor comprises monitoring a pressure pattern sensor to determine if an object having a profile similar to the auxiliary child seat is resting on the seat.

4. The method of claim 1, wherein the step of monitoring the occupant classification sensor comprises monitoring pressure within a fluid-filled bladder located within the seat.

5. The method of claim 1, wherein the step of activating an alerting device comprises generating an audible alert.

6. The method of claim 1, wherein the step of activating an alerting device comprises generating a visible alert.

7. The method of claim 1, further comprising the step of entering information into a control module to allow determination of the acceptable range.

8. The method of claim 7, wherein the step of entering information comprises identifying the auxiliary child seat.

9. The method of claim 7, wherein the step of entering information comprises indicating the weight of a child to be secured in the auxiliary child seat.

10. The method of claim 7, wherein the step of entering information comprises storing data related to the auxiliary child seat in a data storage device associated with the control module.

11. An apparatus for detecting improper installation of an auxiliary child seat in a motor vehicle and providing an alert in the case of improper installation, comprising:

a seat occupancy sensor providing a first electrical signal indicating whether the auxiliary child seat is present on a vehicle seat;

a buckle condition sensor providing a second electrical signal indicating whether the seatbelt buckle is fastened or unfastened;

a seatbelt tension sensor providing a third electrical signal indicating a tautness of the seatbelt;

a child seat detection module receiving the first, second and third electrical signals and determining an improper installation condition if the auxiliary child

seat is present and the seatbelt buckle is unfastened, and further determining an improper installation condition if the auxiliary child seat is present, the seatbelt buckle is fastened, and the seatbelt tautness is not within an acceptable range; and

an alerting device operative to alert a vehicle occupant if the child seat detection module determines that the improper installation condition exists.

12. The apparatus of claim 11, wherein the device operative to detect whether or not the auxiliary child seat is properly positioned further comprises an occupant classification system.

13. The apparatus of claim 12, wherein the occupant classification system is a weight sensor.

14. The apparatus of claim 12, wherein the occupant classification system is a pressure pattern sensor.

15. The apparatus of claim 11, wherein the device operative to alert the vehicle occupant comprises a sound generating device.

16. The apparatus of claim 11, wherein the device operative to alert the vehicle occupant comprises a device generating a visual display.

17. The apparatus of claim 11 wherein the child seat detection module stores information related to one or more auxiliary child seats for use with the vehicle.

18. The apparatus of claim 11, further comprising a user interface operative to allow the vehicle occupant to enter information into the child seat detection module, said information usable by the child seat detection module to determine the acceptable range.